



Future Generation Symposium on Composite Materials 2019 (2019 年度 JCOM 若手シンポジウム)

Organizer : Committee on Composite Materials, The Society of Materials Science, Japan

Date: 26~27th August 2019

Venue: Ryokan Musashi, 868 Shirahamacho, Nishimurogun, Wakayama, Japan 649-2211

Program

【Aug. 26 2019 (Monday)】

<Registration> (12:30~12:55)

< No.264 business meeting of JCOM & opening address> (12:55~13:05)

JCOM Chair, Kazuaki Nishiyabu (Kindai University)

< Self introduction > (13:05~13:20)

◆Session chair: M. Nishikawa (Kyoto Univ.)

< Plenary lecture > (13:20~14:20)

“Multi-Scale Modeling of Carbon Fiber-reinforced Plastic Composites”

Tomonaga Okabe (Tohoku University, Japan)

< Invited lecture 1> (14:20~14:50)

“The influence of residual stress on strength of composite materials”

Boris N. Fedulov (Lomonosov Moscow State University, Russia)

<Invited lecture 2> (14:50~15:20)

“Role of thermo-chemical shrinkage on dimensional stability of composites”

Oleksandr Kravchenko (Old Dominion University, USA)

<Photo session & break> (15:20~15:40)

◆Session chair: T. Kosaka (Kochi Uni. of Tech.)

<General session 1> (15:40~17:00)

1. “Interlaminar Toughening for CFRP Laminates by Introducing Mesh Interlayers with Different Opening Areas”

Hayato Nakatani (Osaka City University, Japan)

2. “In-situ observation and numerical simulation of microscopic failure process in adhesively bonded CFRP joints”

Sota Oshima (Tokyo University of Agriculture and Technology, Japan)

3. “Effects of insulating layer on resistance welding behavior of CF/PPS composites”

Kota Tamura (Kindai University, Japan)

4. “Network-Based Molecular Damage Simulation for Epoxy Resin with Multiple Component Formulation”

Masaaki Nishikawa (Kyoto University, Japan)

<Banquet> (19:00~21:00)

【Aug. 27 2019 (Tuesday)】

◆Session chair: D. Tanabe (National Institute of Tech., Wakayama)

<Invited lecture 3> (9:00~9:30)

“Nonlinear effects in composite materials during deformation”

Alexey Fedorenko (Skolkovo Institute of Science and Technology, Russia)

<General session 2> (9:30~10:30)

5. “Continuous induction welding of CFRTP laminates using high-frequency induction heating”

Kazuki Kurima (Kindai University, Japan)

6. “Experimental study of CFRP/stainless steel hybrid composites using thin-ply prepreg”

Benedikt Kötter (Hamburg University of Technology, Germany)

7. "Development of Degree-of-Cure Measurement Method of Three-Dimensional Shaped FRP by Using Fresnel Based Optical Fiber Sensor"

Genkou Fujioka (Kochi University of Technology, Japan)

<Coffee break> (10:30~10:40)

◆Session chair: H. Nakatani (Osaka City Univ.)

<General session 3> (10:40~11:40)

8. "Effective Image Measurement Technique for Composites Material Testing"

Kiyotaka Obunai (Doshisha University, Japan)

9. "Preliminary investigations on fiber orientation control of CFRTP laminates using FDM 3D printer"

Tihiro Morita (Chiba Institute of Technology, Japan)

10. "Ultrasonic spot welding behavior of CF/PPS laminates using flat and CF/PPS energy director"

Tokiyuki Horiuchi (National Institute of Tech., Wakayama, Japan)

<Lunch break> (11:40~13:00)

◆Session chair: J. Noda (Kindai Univ.)

<Invited lecture 4> (13:00~13:30)

"Properties of bionanocomposites - Starch a potential replacement for synthetic polymer"

Sreekala M. S. and Sabu Thomas (Sree Sankara College, India)

<General session 4> (13:30~14:50)

11. "Properties of Phenol-Formaldehyde nanocomposites - Effect of nanoreinforcements"

Lakshmipriya Ravindran, Sreekala M. S. and Sabu Thomas (Sree Sankara College, India)

12. "One step eco-friendly method for synthesis of silver/graphene oxide nano-scrolls via Hydrogen bonds"

Li Xiaojuan (Shinshu University, Japan)

13. "Resin impregnation and mechanical characterization of Solvent treated cellulose nanofiber preform sheets"

Devendran Thirunavukarasu (Shizuoka University, Japan)

14. "Improvement of strength of glass/epoxy by grafting CNF on the fiber surface"

Mouhamadou M. SARR (Kochi University of Technology, Japan)

<Coffee break> (14:50~15:00)

◆Session chair: K. Obunai (Doshisha Univ.)

<General session 5> (15:00~16:40)

15. "Investigation for Continuous Hybrid Molding Process"

Akio Otani (Kyoto Institute of Technology, Japan)

16. "Manufacturing and Evaluation of Unidirectional CFRTP rod using Pultrusion Molding"

Naoto Ando (Kindai University, Japan)

17. "Automated tape layup molding behavior using CFRTP prepreg tape and infrared heating"

Naoki Nakata (Kindai University, Japan)

18. "Integral Molding and Evaluation of Sandwich Structures with Topology Optimized Core Layer by FDM 3D printer"

Koki Takamura (Chiba Institute of Technology, Japan)

19. "Off axis deformation analyses for Tsunami shelter development"

Junji Noda (Kindai University, Japan)

<Closing address> (16:40~16:50)

Kazuaki Nishiyabu (Kindai University)

[Aug. 28 2019 (Wednesday)]

<Post tour> (10:00~12:00)

Aquaculture Research Institute of Kindai university

<Preparing meeting of RJCM-1> (12:00~13:00)

Venue: Hotel Shirahama

JCOM and Lomonosov Moscow State University members will prepare the first Russia-Japan Joint Symposium on Composite Materials to be held in Moscow, Russia in November 1st, 2019.